Agilent OpenLab CDS Acquisition Failover

Users Guide

This guide describes the OpenLab CDS Acquisition Failover feature available in the OpenLab CDS Client/Server system.

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Overview

In the normal operation of the OpenLab CDS Client/Server system the connection between an AIC and the OpenLab Server is active. Usernames, privileges, and roles are enforced and a user has full access to all projects, instruments, and data.

In the event that the connection between the AIC and the OpenLab Server is broken, a Failover mode is available so a user can continue to process samples.

When the disconnection is detected by the system a warning message is presented to the user and the system directs the user on how to access the Failover mode.

This guide describes additional details on running your system in Failover mode and transferring the files collected during Failover mode to Content Management after the AIC connection to the OpenLab server is restored.

How Failover mode is triggered

NOTE A Shared Service, Alfresco Tomcat, or OpenLab Automation services malfunction, or any combination of the three, will not trigger a properly functioning Failover mode. Service failures themselves are not handled using Failover.

- Network connectivity supporting the server is lost.
- Upon disconnect, if any Acquisition clients are open, a message window will appear on each one saying the following: "Network connection failure, this client will shut down. Any submitted runs will continue to run. Login to the AIC: <AIC PC name> connected to the instrument to use the system in failover mode" - This message is seen in each client Acquisition window.

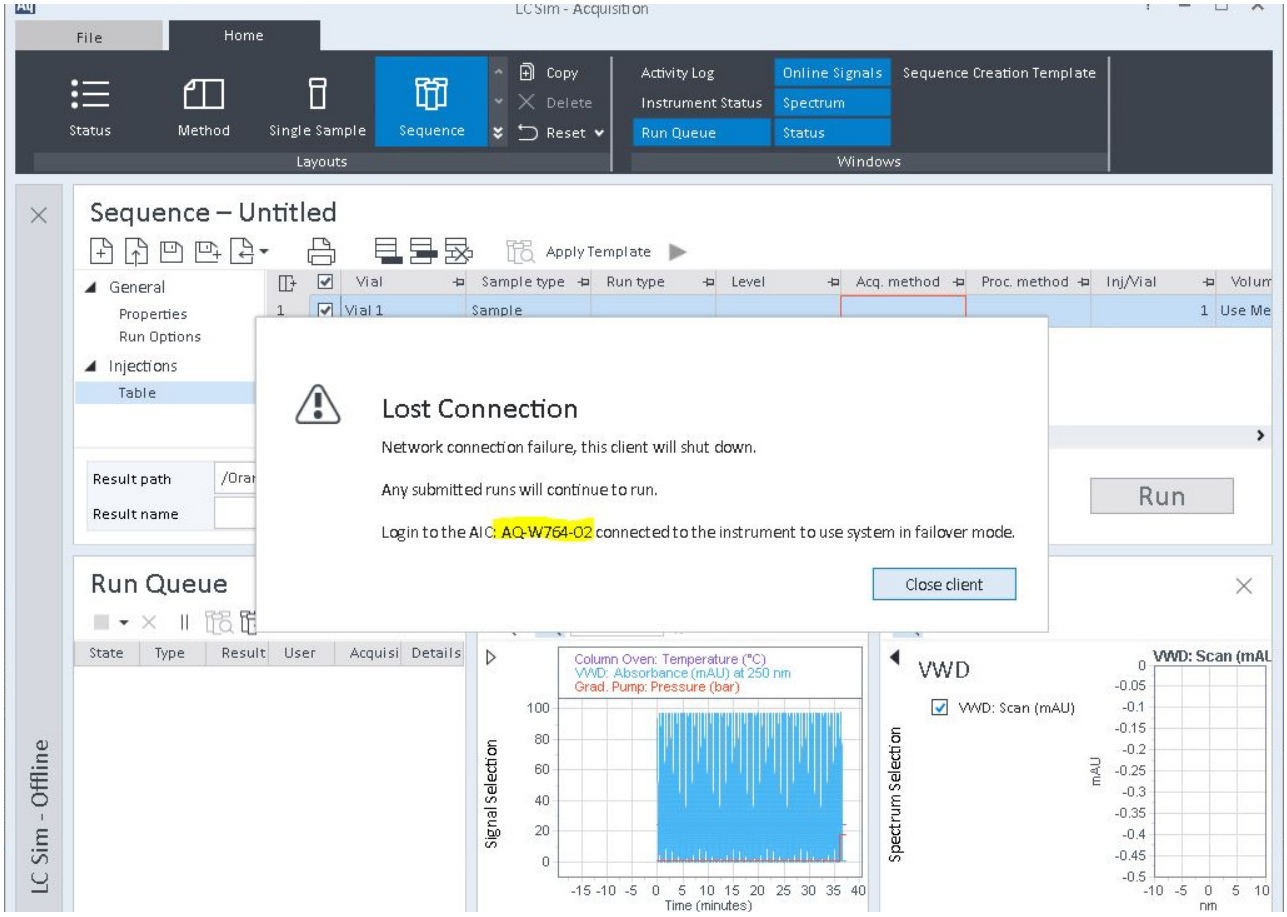

Figure 1 Network disconnection message example

How to access Failover mode after a network connection failure

Launch the Control Panel on an AIC.

- If a connection cannot be made to the central server, there will be a prompt to access Failover mode.
- If the user was already directly accessing an AIC, close and relaunch the Control Panel.

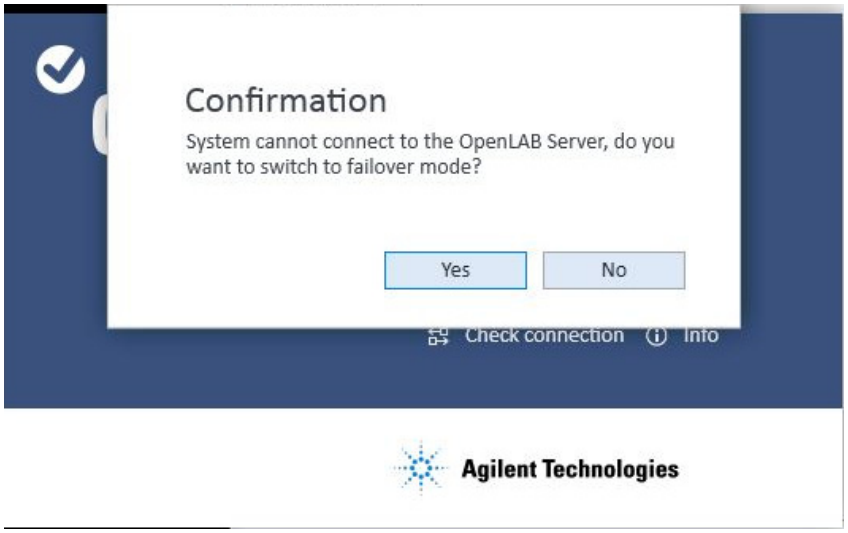

Figure 2 Prompt for accessing Failover mode

NOTE A system that is converted to an AIC from a client will be unable to support Failover operations. To ensure failover operation, uninstall any existing OpenLab CDS instance, and re-install as an AIC.

Files, Projects, and Instruments available in Failover mode

Files

In normal mode, whenever a run is performed on an instrument hosted by the AIC, the AIC caches method, sequence, and report template files to be used in the event of failover.

The following file types will be cached when used to create an analysis run:

- The methods (amx, pmx, smx)
- The report templates (.rdl)
- The sequence file (.sqx)

NOTE

Only files used on an instrument controlled by the AIC will be cached

Projects

Synchronization of the projects/instruments happens every 30 minutes

NOTE

You cannot create new projects in Failover mode.

All synchronized created projects and project groups created before the disconnection will be seen in failover.

NOTE

If a project/project group is created or updated within a few minutes of the network disconnection, there is a chance that the change will not appear in Failover mode.

Instruments

In Failover mode, the AIC will only display the instruments it hosts.

NOTE

You cannot create new instruments in Failover.

Operating in Failover Mode

- Project and instrument related creations or modifications cannot be performed.
- Instruments **cannot** be configured or reconfigured in Failover mode.
- System Settings cannot be modified.
- Licenses are not required.
- Acquisition and Data Analysis have limitations added to their normal behaviors while in Failover mode (otherwise they function the same).
  - Runs submitted in normal mode cannot be reviewed in Data Analysis, and vice versa.
  - Sequences submitted in normal mode cannot be viewed on the sequence table in Failover mode, and vice versa
  - Snapshots cannot be taken of sequences submitted in normal mode, and vice versa.
  - Activity log entries generated in Failover mode will be tagged with Failover once normal mode is restored.
  - Sequences submitted in Failover mode will be named with the <I> <DS> tokens by default, and will have <DS> attached to the end of an existing name if no other data/time token is already attached.
- When the network is restored, the message "Network connection is restored. Relaunch the OpenLab Control Panel and Acquisition Client to exit Failover mode" will appear on each Acquisition client window.
  - After acknowledging the message, the user will be able to complete their actions or submit new runs.

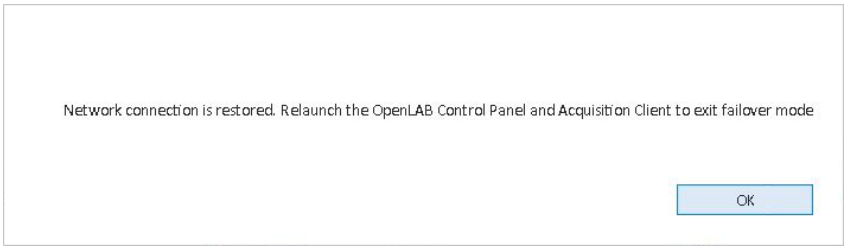

Figure 3 Network connection restored message

Data Transfer to Content Management

All results files from runs submitted while in Failover mode will be cached and stored on the AIC. Once the connection is restored, the user needs to use a special tool to upload the data acquired in Failover mode to the remote repository.

Once the network is restored, the **Failover Uploader Tool** is used for manually transferring project results data generated in Failover mode to Content Management.

- The tool is separate from CDS, and can be found among the other Shared Services tools listed in Programs (Start>>All Programs>>Agilent Technologies>>OpenLab Shared Services).
- Only projects with valid results will be available for upload. Valid results are ones that contain .acaml data files.
- After opening the tool, all projects containing valid data files will be highlighted. They can be individually or altogether uploaded.
- Users without the permission to access a project folder will not be able to upload data from that project. The project name will be greyed out.
- Files will be passed to the File Upload Queue to be transferred to Content Management.
- Uploaded files will be acknowledged in the System Activity log.
- Once a file has been uploaded, it will be deleted from the local AIC storage.

NOTE Upon reconnection, runs submitted in normal mode before the disconnection occurred will complete and will be automatically uploaded to Content Management by the File Upload Queue.

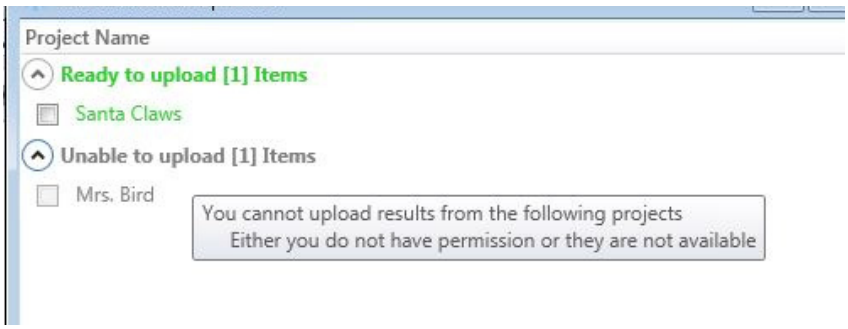

Figure 4 Failover Uploader Tool example

Any other files that were created in failover mode, including methods, sequences, report templates, and sequence templates, must be manually uploaded to OpenLab Server through its Web interface.

NOTE The Failover Uploader Tool only looks at the acaml file in the result set folder. If the acaml file is missing or did not get generated, the tool will not upload that incomplete result set.

After you have manually uploaded these files, check the instrument activity log to verify that all records in failover mode are updated in the OpenLab Server database.

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